

p40

#17

$$\textcircled{1} n + d + q = 49$$

$$\textcircled{2} n + q + 5 = d$$

sub  $\textcircled{2}$  into  $\textcircled{1}$

$$n + (n + q + 5) + q = 49$$

$$2n + 2q = 49 - 5$$

$$[2n + 2q = 44] \div 2$$

$$n + q = 22$$

sub  $n + q = 22$  into  $\textcircled{2}$

$$n + q + 5 = d$$

$$22 + 5 = d$$

$$\boxed{d = 27}$$

$\therefore$  there are 27 dimes

$$\textcircled{3} [0.05n + 0.10d + 0.25q = 5.20] \times 100$$

$$\textcircled{4} [n + q = 22] \times 5$$

sub  $d = 27$  into  $\textcircled{3}$

$$\textcircled{3} 5n + 10d + 25q = 520$$

$$5n + 10(27) + 25q = 520$$

$$5n + 25q = 520 - 270$$

$$\boxed{5n + 25q = 250} \text{ new equation } \textcircled{5}$$

$$\textcircled{5} 5n + 25q = 250$$

$$- \textcircled{4} 5n + 5q = 110$$

$$\frac{20q}{20} = \frac{140}{20}$$

$$q = 7$$

sub  $q = 7$  into  $\textcircled{2}$

$$n + 7 + 5 = 27$$

$$n = 27 - 5 - 7$$

$$n = 15$$

$\therefore$  there are 27 dimes, 15 nickels and 7 quarters.